#### Figure 1

1 atgtcacgta ttggtaataa agtaattact atgcctgcag gcgttgaatt aacaaataac 61 aacaatgtta ttactgttaa aggccctaaa ggcgaactca ctcgtgagtt caacaaaaat 121 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa 181 atgaaaacaa tccatggtac aacccgtgct aacttgaata acatggttgt aggtgttct 241 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt 301 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga 361 attactttca ctgttgctaa cccaacttca atctcagttg aaggaatcaa caaagaagtt 421 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa 481 gggatccgtt acgttggtga atacgtacgc cttaaagaag gtaaaacagg taaataa (SEQ ID NO: 1)

### Figure 2

1 MSRIGNKVIT MPAGVELTNN NNVITVKGPK GELTREFNKN IEIKVEGTEI TVVRPNDSKE 61 MKTIHGTTRA NLNNMVVGVS EGFKKDLEMK GVGYRAQLQG TKLVLSVGKS HQDEVEAPEG 121 ITFTVANPTS ISVEGINKEV VGQTAAYIRS LRSPEPYKGK GIRYVGEYVR LKEGKTGK (SEQ ID NO: 2)

### Figure 3

1 atgtttcagt taagaaaaaa aatgacgcgc aaacaattag ccttgttgag tgctggagtg 61 ttgacctgtg tggttggtgg tagctacttg ataatgaacc atcaacaaca agaaattgtc 121 tctagtgtca acaaagtaaa agccttaacc ataaaagaag ccatggaaca aggaaaagat 181 atcaqcttqa ccttaqctqq cqaaqtaaca gctaacaaca gcagcaaagt caaaatcgac 241 tcaagtaaag gagaagtcaa agaggtcttt gttaaaaaag gcgatgttgt caaagtagga 301 caaccettgt ttagetatga aacgtcacag cggttaacgg ctcaaagttc agaatttgat 361 gttcaaacca aagccaatca gctccaagtt gctaaaacca atgcagcatt gaagtgggaa 421 acctacaatc gcaaggtcaa tgaaatcaac accctaaaat ctcgctacaa cactgcacca 481 gatgagaget tactagagea aattegeage geagaagaea gtgtateeea ageaetaage 541 gatgccaaaa cagcagatag cgatgtcaaa accgctcaaa tcgaactcga taaagctaat 601 gctactgcca caacggaaaa aggtaaacta gagtatgaca ccgttaagtc agacaccgca 661 ggaaccattg ttagtctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaaat 721 gaaactttta tggaaattat cgacaaatca aaaatgttag tcaaaggtaa cattagtgaa 781 tttgaccgtg acaagttaaa aatcggtcaa aaagtcgaag tgattgaccg caaagacaac 841 tctaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc 901 caaggtcaag gccaaggtgg caatgaccaa caagataatc caaaccaagc aaaattccct 961 tatgttattg aacttgacca atcagacaag cagccactca ttggctcaca cacctatgtt 1021 aatqtqctca acaatqttcc agaaqctgqc aagatcqtat tgaaagaaac ctttacaatq 1081 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaacaagaa 1141 atcaagacta agccettete aaaaggttat gttgaggtaa caagtggett gactatgeaa 1201 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt 1261 aaaccttaa (SEQ ID NO: 3)

#### Figure 4

1 MFQLRKKMTR KQLALLSAGV LTCVVGGSYL IMNHQQQEIV SSVNKVKALT IKEAMEQGKD
61 ISLTLAGEVT ANNSSKVKID SSKGEVKEVF VKKGDVVKVG QPLFSYETSQ RLTAQSSEFD
121 VQTKANQLQV AKTNAALKWE TYNRKVNEIN TLKSRYNTAP DESLLEQIRS AEDSVSQALS
181 DAKTADSDVK TAQIELDKAN ATATTEKGKL EYDTVKSDTA GTIVSLNTDL PNQSKSKKEN
241 ETFMEIIDKS KMLVKGNISE FDRDKLKIGQ KVEVIDRKDN SKKWTGKVTQ VGNLKAEEKG
301 QGQGQGGNDQ QDNPNQAKFP YVIELDQSDK QPLIGSHTYV NVLNNVPEAG KIVLKETFTM
361 AENGKTYVWK VDKNKVKKQE IKTKPFSKGY VEVTSGLTMQ DKIAQPLPGM KDGMEVGSIV
421 KP
(SEQ ID NO: 4)

## Figure 5

atgataaac gatgtaaagg aattggtcta gccttaatgg ccttctttt ggtagcttgt
gtgaatcagc accctaaaac ggctaaagg actgaacagc agagaattgt agccacttcg
tgtgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt
181 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat
241 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattctta
301 caagaagatt tggaacccaa gtatcaaaaa ttggatactg aggaaccttt tcaagaacta acgaattag aggaactata acgaattag ggaaccttt ggaacctta aggaactata atcgtgctt tcaagaactaa atcgtgatt tttgaactta aggaaccttt ccaacgtcaa atcgtgattag ggaaccttt ccaacgtcaa atcgtgatga agaaaaagcc taaagtgct atcttatgg gcttgccagg tagttatttg
541 gtggcgacga accaatctta tgtagggaat cttttggact aggaacatgt
601 tatcagtcag atgaaaaga atttctatca gctaatcctg aggaacatgt
601 tatcagtcag ttttacgaac agctcatgcc attccagaca aggaaaagtc
601 cctgacttga ttttacgaac agctcatgcc attccagaca aggaaaagtc
721 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc
781 tatgatttgg acaataccct gtttggcatg agtgctaaat tgaactaccc agaagccttg
841 gacaccttaa cacagctttt tgaccacgtg ggagatcatc cgtaa
(SEQ ID NO: 5)

### Figure 6

- 1 MIKRCKGIGL ALMAFFLVAC VNQHPKTAKE TEQQRIVATS VAVVDICDRL NLDLVGVCDS
  61 KLYTLPKRYD AVKRVGLPMN PDIELIASLK PTWILSPNSL QEDLEPKYQK LDTEYGFLNL
  121 RSVEGMYQSI DDLGNLFQRQ QEAKELRQQY QDYYRAFQAK RKGKKKPKVL ILMGLPGSYL
  181 VATNQSYVGN LLDLAGGENV YQSDEKEFLS ANPEDMLAKE PDLILRTAHA IPDKVKVMFD
- 241 KEFAENDIWK HFTAVKEGKV YDLDNTLFGM SAKLNYPEAL DTLTQLFDHV GDHP

(SEO ID NO: 6)

### Figure 7

- 1 atgtcacgta ttggtaataa agtaattact atgcctgcag gcgttgaatt aacaaataac 61 aacaatgtta ttactgttaa aggccctaaa ggcgaactca ctcgtgagtt taacaaaaat 121 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa 181 atgaaaacaa tccatggtac aacccgtgct aacttgaata acatggttgt aggtgttct 241 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt 301 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga 361 attactttca ctgttgctaa cccaacttca atctcagttg aaggaatcaa caaagaagtt 421 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa 481 gggatccgtt acgttggtga atacgtacgc cttaaagaag gtaaaacagg taaaataa (SEO ID NO: 21)
- Figure 8

/ 1

1 MSRIGNKVIT MPAGVELTNN NNVITVKGPK GELTREFNKN IEIKVEGTEI TVVRPNDSKE 61 MKTIHGTTRA NLNNMVVGVS EGFKKDLEMK GVGYRAQLQG TKLVLSVGKS HQDEVEAPEG 121 ITFTVANPTS ISVEGINKEV VGQTAAYIRS LRSPEPYKGK GIRYVGEYVR LKEGKTGK

(SEQ ID NO: 22)

### Figure 9

1 atgtcacgta ttggtaataa agtaattact atgcctgcag gcgttgaatt aacaaataac 61 aacaatgtta ttactgttaa aggccctaaa ggcgaactca ctcgtgagtt taacaaaaat 121 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa 181 atgaaaacaa tccatggtac aacccgtgct aacttgaata acatggttgt aggtgttct 241 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt 301 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga 361 attactttca ctgttgctaa cccaacttca atctcagttg aaggaatcaa caaaggagtt 421 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa 481 gggatccgtt acgttggtga atacgtacgc cttaaagaag gtaaaacagg taaataa (SEQ ID NO: 23)

#### Figure 10

1 MSRIGNKVIT MPAGVELTNN NNVITVKGPK GELTREFNKN IEIKVEGTEI TVVRPNDSKE 61 MKTIHGTTRA NLNNMVVGVS EGFKKDLEMK GVGYRAQLQG TKLVLSVGKS HQDEVEAPEG 121 ITFTVANPTS ISVEGINKEV VGQTAAYIRS LRSPEPYKGK GIRYVGEYVR LKEGKTGK (SEQ ID NO: 24)

### Figure 11

1 atgtcacgta ttggtaataa agtaattact atgcctgcag gcgttgaatt aacaaataac 61 aacaatgtta ttactgttaa aggccctaaa ggcgaactca ctcgtgagtt caacaaaaat 121 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa 181 atgaaaacaa tccatgggac aacccgtgct aacttgaata acatggttgt aggtgttct 241 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgcgctca acttcaaggt 301 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga 361 attactttca ctgttgctaa cccaacttca atctcagttg aaggaatcaa caaagaagtt 421 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa 481 gggatccgtt acgttggtga atacgtacgc cttaaagaag gtaaaacagg taaataa (SEQ ID NO: 25)

### Figure 12

1 MSRIGNKVIT MPAGVELTNN NNVITVKGPK GELTREFNKN IEIKVEGTEI TVVRPNDSKE
61 MKTIHGTTRA NLNNMVVGVS EGFKKDLEMK GVGYRAQLQG TKLVLSVGKS HQDEVEAPEG
121 ITFTVANPTS ISVEGINKEV VGQTAAYIRS LRSPEPYKGK GIRYVGEYVR LKEGKTGK
(SEQ ID NO: 26)

#### Figure 13

1 atgtcacgta ttggtaataa agtaattact atgcctgcag gtgttgaatt aacaaataac 61 aacaatgtta ttactgttaa aggccctaaa ggcgaactca ctcgtgagtt caacaaaaat 121 attgaaatca aagttgaagg gactgaaatc acagttgtac gtcctaacga ctcaaaagaa 181 atgaaaacaa tccatggtac aacccgtgct aacttgaata acatggttgt aggtgttct 241 gaaggtttca aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt 301 actaaacttg tcctttcagt aggtaaatct caccaagacg aagttgaagc tccagaagga 361 attactttca ctgttgctaa cccaacítca atctcagttg aaggaatcaa caaagaagtt 421 gttggtcaaa cagctgctta catccgtagc ttgcgttcac cagagcctta caaaggcaaa 481 gggatccgtt acgttggtga atacgtacgc cttaaagaag gtaaaacagg taaataa (SEQ ID NO: 27)

### Figure 14

1 MSRIGNKVIT MPAGVELTNN NNVITVKGPK GELTREFNKN IEIKVEGTEI TVVRPNDSKE 61 MKTIHGTTRA NLNNMVVGVS EGFKKDLEMK GVGYRAQLQG TKLVLSVGKS HQDEVEAPEG 121 ITFTVANPTS ISVEGINKEV VGQTAAYIRS LRSPEPYKGK GIRYVGEYVR LKEGKTGK (SEQ ID NO: 28)

### Figure 15

1 atgtttcagt taagaaaaaa aatgacgcgc aaacaattag ccttgttgag tgctggagtg 61 ttgacctgtg tggttggtgg tagctacttg ataatgaacc atcaacaaca agaaattgtc 121 tctagtgtca acaaagtaaa agccttaacc ataaaagaag ccatggaaca aggaaaagat 181 atcagcttga ccttagctgg cgaaqtaaca gctaacaaca gcagcaaaqt caaaatcgac 241 tcaagtaaag gagaagtcaa agaggtcttt gttaaaaaag gcgatgttgt caaagtagga 301 caaccettgt ttagetatga aacgteacag eggttaacgg etcaaagtte agaatttgat 361 gttcaaacca aagccaatca gctccaagtt gctaaaacca atgcagcatt gaagtgggaa 421 acctacaatc gcaaggtcaa tgaaatcaac accctaaaat ctcgctacaa cactgcacca 481 gatgagaget tactagagea aattegeage geagaagaea gtgtateeea ageaetaage 541 gatgccaaaa cagcagatag cgatgtcaaa accgctcaaa tcgaactcga taaagctaat 601 gctactgcca caacggaaaa aggtaaacta gagtatgaca ccgttaagtc agacaccgca 661 ggaaccattg ttagtctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaaat 721 gaaactttta tggaaattat cgacaaatca aaaatgttag tcaaaggtaa cattagtgaa 781 tttgaccgtg acaagttaaa aatcggtcaa aaagtcgaag tgattgaccg caaagacaac 841 tctaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc 901 caaggtcaag gccaaggtgg caatgaccaa caagataatc caaaccaagc aaaattccct 961 tatgttattg aacttgacca atcagacaag cagccactca ttggctcaca cacctatgtt 1021 aatgtactca acaatgttcc agaagctggc aagatcgtat tgaaagaaac ctttacaatg 1081 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaacaagaa 1141 atcaagacta agcccttctc aaaaggttat gttgaggtaa caagtggctt gactatgcaa 1201 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt 1261 aaaccttaa (SEQ ID NO: 29)

#### Figure 16

1 MFQLRKKMTR KQLALLSAGV LTCVVGGSYL IMNHQQQEIV SSVNKVKALT IKEAMEQGKD
61 ISLTLAGEVT ANNSSKVKID SSKGEVKEVF VKKGDVVKVG QPLFSYETSQ RLTAQSSEFD
121 VQTKANQLQV AKTNAALKWE TYNRKVNEIN TLKSRYNTAP DESLLEQIRS AEDSVSQALS
181 DAKTADSDVK TAQIELDKAN ATATTEKGKL EYDTVKSDTA GTIVSLNTDL PNQSKSKKEN
241 ETFMEIIDKS KMLVKGNISE FDRDKLKIGQ KVEVIDRKDN SKKWTGKVTQ VGNLKAEEKG
301 QGQGQGGNDQ QDNPNQAKFP YVIELDQSDK QPLIGSHTYV NVLNNVPEAG KIVLKETFTM
361 AENGKTYVWK VDKNKVKKQE IKTKPFSKGY VEVTSGLTMQ DKIAQPLPGM KDGMEVGSIV
421 KP

(SEQ ID NO: 30)

#### Figure 17

1 atgiticagi taagaaaaa aatgacgcg aaacaattag ccitigtigag tgctggagtg 61 ttgacctgtg tggttggtg tagctacttg ataatgaacc atcaacaaca agaaattgtc 121 tctagtgca acaaagtaaa agccttaacc ataaaagaag ccatiggaaca aggaaaagat 181 atcagctiga ccitiagctgg cgaagtaaca gctaacaaca gcagcaaagi caaaatcgac 241 tcaagtaaag gagaagtcaa agaggictit gitaaaaaag gcgatgitigi caaagtagga 301 caaccctigi ttagctatga aacgicacaag cggitaacgg ctcaaagiic agaattigat 361 gitcaaacca aagccaatca gciccaagii gctaaaacca atgcagcaii gaagtggaa 421 acctacaatc gcaaggicaa tgaaatcaac accctaaaat ciccgctacaa cactgcacca 481 gatgagagci tactagagca aattcgcagc gcagaagaca gigitatccca agcactaagc 541 gatgccaaaa cagcagatag cgatgicaaa accgicaaaa tcgaactcga taaagctaat 601 gctactgcca caacggaaaa aggiaaacta gagtatgaca ccgitaagic agacaccgca

#### Figure 17 (continued)

661 ggaaccattg ttagtctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaaat 721 gaaactttta tggaaattat cgacaaatca aaaatgttag tcaaaggtaa cattagtgaa 781 tttgaccgtg acaagttaaa aatcggtcaa aaagtcgaag tgattgaccg caaagacaac 841 tctaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc 901 caaggtcaag gccaaggtgg caatgaccaa caagataatc caaaccaagc ggaaaaaggc 961 tatgttattg aacttgacca atcagacaag cagcactca ttggctcaca cacctatgtt 1021 aatgtactca acaatgttcc agaagctggc aagatcgtat tgaaagaaac ctttacaatg 1081 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaaccaagaa 1141 atcaagacta agcccttctc aaaaggttat gtgaggtaa caagtggctt gactatgcaa 1201 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt 1261 aaaccttaa (SEO ID NO: 31)

Figure 18

1 MFQLRKKMTR KQLALLSAGV LTCVVGGSYL IMNHQQQEIV SSVNKVKALT IKEAMEQGKD
61 ISLTLAGEVT ANNSSKVKID SSKGEVKEVF VKKGDVVKVG QPLFSYETSQ RLTAQSSEFD
121 VQTKANQLQV AKTNAALKWE TYNRKVNEIN TLKSRYNTAP DESLLEQIRS AEDSVSQALS
181 DAKTADSDVK TAQIELDKAN ATATTEKGKL EYDTVKSDTA GTIVSLNTDL PNQSKSKKEN
241 ETFMEIIDKS KMLVKGNISE FDRDKLKIGQ KVEVIDRKDN SKKWTGKVTQ VGNLKAEEKG
301 QGQGQGGNDQ QDNPNQAKFP YVIELDQSDK QPLIGSHTYV NVLNNVPEAG KIVLKETFTM
361 AENGKTYVWK VDKNKVKKQE IKTKPFSKGY VEVTSGLTMQ DKIAQPLPGM KDGMEVGSIV
421 KP
(SEQ ID NO: 32)

#### Figure 19

1 atgtttcagt taagaaaaaa aatgacgcgc aaacaattag ccttgttgag tgctggagtg 61 ttgacctgtg tggttggtgg tagctacttg ataatgaacc atcaacaaca agaagttgtc 121 tctagtgtca acaaagtaaa agccttaacc ataaaagaag ccatggaaca aggaaaagat 181 atcagettga cettagetgg egaagtaaca getaacaaca geageaaagt caaaategae 241 tcaaqtaaaq qaqaaqtcaa aqaqqtcttt gtcaaaaaag gcgatgttgt caaagtagga 301 caacccttgt ttagctatga aacgtcacag cggttaacgg ctcaaagttc agaatttgat 361 gttcaaacca aagccaatca actccaagtt gctaaaacca atgcagcatt gaagtgggaa 421 acctacaatc gcaaggtcaa tgaaatcaac accctaaaat ctcgctacaa cactgcacca 481 gatgagaget tactagagea aattegeage geagaagaea gtgtateeea ageactaage 541 gatgccaaaa cagcagatag cgatgtcaaa accgctcaaa tcgaactcga taaagctaat 601 gctactgcca caatggaaaa aggtaaacta gagtatgaca ccgttaagtc agacaccgca 661 ggaaccattg ttagcctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaaat 721 qaaactttta tqqaaattat cqacaaatca aaaatgttag tcaaaggtaa catcagtgaa 781 tttgaccqtg acaaqttaaa aatcgatcaa aaagtcgaag tgattgaccg caaagacaac 841 totaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc 901 caaqqtcaaq qccaaqqtqq caatqaccaa caagacaatc caaaccaagc aaaattccct 961 tatqttatcq aacttqacca atcagacaag cagccactca ttggctcaca cacctatgtt 1021 aatgtgetea acaatgttee agaagetgge aagategtat tgaaagaaac etttacaatg 1081 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaacaagaa 1141 atcaaqacta agccettete aaaaggttat gttgaggtga caagtggett gactatgcaa 1201 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt 1261 aaaccttaa SEQ ID NO: 33

### Figure 20

1 MFQLRKKMTR KQLALLSAGV LTCVVGGSYL IMNHQQQEVV SSVNKVKALT IKEAMEQGKD
61 ISLTLAGEVT ANNSSKVKID SSKGEVKEVF VKKGDVVKVG QPLFSYETSQ RLTAQSSEFD
121 VQTKANQLQV AKTNAALKWE TYNRKVNEIN TLKSRYNTAP DESLLEQIRS AEDSVSQALS
181 DAKTADSDVK TAQIELDKAN ATATMEKGKL EYDTVKSDTA GTIVSLNTDL PNQSKSKKEN
241 ETFMEIIDKS KMLVKGNISE FDRDKLKIDQ KVEVIDRKDN SKKWTGKVTQ VGNLKAEEKG
301 QGQGQGGNDQ QDNPNQAKFP YVIELDQSDK QPLIGSHTYV NVLNNVPEAG KIVLKETFTM
361 AENGKTYVWK VDKNKVKKQE IKTKPFSKGY VEVTSGLTMQ DKIAQPLPGM KDGMEVGSIV
421 KP

(SEQ ID NO: 34)

### Figure 21

1 atgtttcagt taagaaaaaa aatgacgcgc aaacaattag ccttgttgag tgctggagtg 61 ttgacctgtg tggttggtgg tacctacttg ataatgaatc atcaacaaca agaaattgtc 121 totagtgtca acaaagtaaa agcottaaco ataaaagaag coatggaaca aggaaaagat 181 atcagcttga ccttagctgg cgaagtaaca gctaacaaca gcagcaaagt caaaatcgac 241 tcaagtaaag gagaagtcaa agatgtcttt gtcaaaaaag gcgatgttgt caaagtagga 301 caaccettgt ttagetatga aacgtcacaa cggttaacgg ctcaaagttc agaatttgat 361 gttcaaacca aagccaatca actccaagtt gctaaaacca atgcagcatt gaagtgggaa 421 acctacaatc gcaaggtcaa tgaaatcaat accctaaaat ctcgctacaa cactgcacca 481 gatgagaget tactagagea aattegeage geagaagaea gtgtatetea ageaetaage 541 gatgccaaaa cagcagatag cgatgtcaaa accgctcaaa tcgaactcga taaagctaat 601 gctactgccg caacggaaaa aggtaaacta gagtatgaca ccgttaagtc agacaccgca 661 ggaaccattg ttagtctaaa tactgatttg ccaaatcaat caaaatccaa aaaagaaaat 721 gaaactttta tggaaattat cgacaaatca aaaatgttag tcaaaggtaa catcagtgaa 781 tttgaccgtg acaagttaaa aatcgatcaa aaagtcgaag tgattgaccg caaagacaac 841 tctaaaaaat ggactggaaa agtaacccaa gttggcaacc tcaaagcaga ggaaaaaggc 901 caaggtcaag gccaaggtgg caatgaccaa caagataatc caaaccaagc aaaattccct 961 tatgttatcg aacttgacca atcagacaag cagccactca ttggttcaca cacctatgtt 1021 aatgtgctca acaatgttcc agaagctggc aagatcgtat tgaaagaaac ctttacaatg 1081 gcagaaaatg gaaaaaccta tgtgtggaaa gttgataaaa acaaggtcaa aaaacaagaa 1141 atcaagacta agcccttctc aaaaggttat gttgaggtga caagcggctt gactatgcaa 1201 gataagattg ctcagccgct tcctggcatg aaagacggta tggaggtagg aagtattgtt 1261 aaaccttaa (SEQ ID NO: 35)

#### Figure 22

1 MFQLRKKMTR KQLALLSAGV LTCVVGGTYL IMNHQQQEIV SSVNKVKALT IKEAMEQGKD
61 ISLTLAGEVT ANNSSKVKID SSKGEVKDVF VKKGDVVKVG QPLFSYETSQ RLTAQSSEFD
121 VQTKANQLQV AKTNAALKWE TYNRKVNEIN TLKSRYNTAP DESLLEQIRS AEDSVSQALS
181 DAKTADSDVK TAQIELDKAN ATAATEKGKL EYDTVKSDTA GTIVSLNTDL PNQSKSKKEN
241 ETFMEIIDKS KMLVKGNISE FDRDKLKIDQ KVEVIDRKDN SKKWTGKVTQ VGNLKAEEKG
301 QGQGQGGNDQ QDNPNQAKFP YVIELDQSDK QPLIGSHTYV NVLNNVPEAG KIVLKETFTM
361 AENGKTYVWK VDKNKVKKQE IKTKPFSKGY VEVTSGLTMQ DKIAQPLPGM KDGMEVGSIV
421 KP

(SEQ ID NO: 36)

### Figure 23

1 atgataaaac gatgtaaagg aattggtcta gtcttaatgg ccttctttt ggtagcttgt 61 gtaaatcagc accctaaaac ggctaaagag actgaacagc agagaattgt agccacttcg 121 gttgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt 181 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat 241 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattcttta 301 caagaagatt tggaacccaa gtatcaaaaa ttggatactg agtatggttt tttgaactta 361 cgaagtgttg agggcatgta ccagtctatt gatgatttag ggaacctttt ccaacgtcaa 421 caagaagcaa aagaattgcg ccagcaatac caggactatt atcgtgcttt ccaagctaaa 481 cgcaagggga agaaaaagcc taaagtgctt attcttatgg gcttgccagg tagttatttg 541 gtqqcqacqa accaatctta tgtaqggaat cttttggact tggcaggtgg tgagaatgtt 601 tatcaqtcaq atqaqaaaqa atttctatca qttaatcctq aagacatgct agctaaggag 661 cctgacttga ttttacgaac agctcacgcc attccagaca aggtaaaagt gatgtttgac 721 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc 781 tatgatttgg acaataccet gtttggcatg agtgctaaat tgaactaccc agaagcettg 841 gacaccttaa cacagctttt tgaccacgtg ggagatcatc cgtaa (SEQ ID NO: 37)

### Figure 24

1 MIKRCKGIGL VLMAFFLVAC VNQHPKTAKE TEQQRIVATS VAVVDICDRL NLDLVGVCDS
61 KLYTLPKRYD AVKRVGLPMN PDIELIASLK PTWILSPNSL QEDLEPKYQK LDTEYGFLNL
121 RSVEGMYQSI DDLGNLFQRQ QEAKELRQQY QDYYRAFQAK RKGKKKPKVL ILMGLPGSYL
181 VATNQSYVGN LLDLAGGENV YQSDEKEFLS VNPEDMLAKE PDLILRTAHA IPDKVKVMFD
241 KEFAENDIWK HFTAVKEGKV YDLDNTLFGM SAKLNYPEAL DTLTQLFDHV GDHP

(SEQ ID NO: 38)

#### Figure 25

1 atgataaaac gatgtaaagg aattggtcta gtcttaatgg ccttcttttt ggtagcttgt 61 gtaaatcagc accctaaaac ggctaaagag actgaacagc agagaattgt agccacttcg 121 gttgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt 181 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat 241 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattcttta 301 caagaagatt tggaacccaa gtatcaaaaa ttggatactg agtatggttt tttgaactta 361 cgaagtgttg agggcatgta ccagtctatt gatgatttag ggaacctttt ccaacgtcaa 421 caagaagcaa aagaattgcg ccagcaatac caggactatt atcgtgcttt ccaagctaaa 481 cgcaagggga agaaaaagcc taaagtgctt attcttatgg gcttgccagg tagttatttg 541 gtggcgacga accaatctta tgtagggaat cttttggact tggcaggtgg tgagaatgtt 601 tatcagtcag atgagaaaga atttctatca gttaatcctg aagacatgct agctaaggag 661 cctqacttqa ttttacqaac agctcacqcc attccaqaca aggtaaaagt gatgtttgac 721 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc 781 tatgatttgg acaataccct gtttggcatg agtgctaaat tgaactaccc agaagccttg 841 gacaccttaa cacagctttt tgaccacgtg ggagatcatc cgtaa (SEQ ID NO: 39)

#### Figure 26

1 MIKRCKGIGL VLMAFFLVAC VNQHPKTAKE TEQQRIVATS VAVVDICDRL NLDLVGVCDS
61 KLYTLPKRYD AVKRVGLPMN PDIELIASLK PTWILSPNSL QEDLEPKYQK LDTEYGFLNL
121 RSVEGMYQSI DDLGNLFQRQ QEAKELRQQY QDYYRAFQAK RKGKKKPKVL ILMGLPGSYL
181 VATNQSYVGN LLDLAGGENV YQSDEKEFLS VNPEDMLAKE PDLILRTAHA IPDKVKVMFD
241 KEFAENDIWK HFTAVKEGKV YDLDNTLFGM SAKLNYPEAL DTLTQLFDHV GDHP

(SEO ID NO: 40)

### Figure 27

1 atgataaaac gatgtaaagg aattggtcta gccttaatgg ccttcttttt ggtagcttgt 61 gtgaatcagc accctaaaac ggctaaagag actgaacagc agagaattgt agccacttcg 121 gttgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt 181 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat 241 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattcttta 301 caagaagatt tggaacccaa gtatcaaaaa ttggatactg agtatggttt tttgaactta 361 cgaagtgttg agggcatgta ccagtccatt gatgatttag ggaacctttt ccaacgtcaa 421 caagaagcaa aagaattgcg ccagcaatac caggactatt atcgtgcttt ccaagctaaa 481 cgtaagggga agaaaaagcc taaagtgctt attettatgg gettgeeagg tagttatttg 541 gtggcgacga accaatctta tgtagggaat cttttggatt tggcaggtgg tgagaatgtt 601 tatcagtcag atgagaaaga atttctatca gctaatcctg aagacatgct ggctaaggag 661 cctgatttga ttttacgaac agctcacgcc attccagaca aggtaaaagt gatgtttgac 721 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc 781 tatgatttgg acaataccct gtttggcatg agtgctaaat tgaactaccc agaagccttg 841 gacaccttaa cacagctttt tgaccgcgtg ggagatcatc cgtaa (SEQ ID NO: 41)

### Figure 28

1 MIKRCKGIGL ALMAFFLVAC VNQHPKTAKE TEQQRIVATS VAVVDICDRL NLDLVGVCDS 61 KLYTLPKRYD AVKRVGLPMN PDIELIASLK PTWILSPNSL QEDLEPKYQK LDTEYGFLNL 121 RSVEGMYQSI DDLGNLFQRQ QEAKELRQQY QDYYRAFQAK RKGKKKPKVL ILMGLPGSYL 181 VATNQSYVGN LLDLAGGENV YQSDEKEFLS ANPEDMLAKE PDLILRTAHA IPDKVKVMFD 241 KEFAENDIWK HFTAVKEGKV YDLDNTLFGM SAKLNYPEAL DTLTQLFDRV GDHP (SEQ ID NO: 42)

### Figure 29

1 atgataaaac gatgtaaagg aattggtcta gtcttaatgg ccttcttttt ggtagcttgt 61 gtaaatcagc accctaaaac ggctaaagag actgaacagc agagaattgt agccacttcg 121 gttgctgtgg ttgatatctg tgaccgttta aatttagacc tcgttggggt ttgtgatagt 181 aaattatata cccttcctaa acgctatgat gctgttaagc gtgtgggttt acccatgaat 241 cctgatatag agttgattgc ttctttgaaa ccaacttgga ttttgagtcc caattcttta 301 caagaagatt tggaacccaa gtatcaaaaa ttggatactg agtatggttt tttgaactta 361 cgaagtgttg agggcatgta ccagtctatt gatgatttag ggaacctttt ccaacgtcaa 421 caagaagcaa aagaattgcg ccagcaatac caggactatt atcgtgcttt ccaagctaaa 481 cgtaagggga agaaaaagcc taaagtgctt attcttatgg gcttgccagg tagttatttg 541 gtggcgacga accaatctta tgtagggaat cttttggact tggcaggtgg tgagaatgtt 601 tatcagtcag atgagaaaga atttctatca gttaatcctg aagacatgct agctaaggag 661 cctgacttga ttttacgaac agctcacgcc attccagaca aggtaaaagt gatgtttgac 721 aaagaatttg ctgaaaatga tatttggaaa cattttacgg cagtcaagga agggaaagtc 781 tatgatttgg acaataccct gtttggcatg agtgctaaat tgaactaccc agaagccttg 841 gacaccttaa cacagctttt tgaccacgtg ggagatcatc cgtaa (SEQ ID NO: 43)

#### Figure 30

1 MIKRCKGIGL VLMAFFLVAC VNQHPKTAKE TEQQRIVATS VAVVDICDRL NLDLVGVCDS 61 KLYTLPKRYD AVKRVGLPMN PDIELIASLK PTWILSPNSL QEDLEPKYQK LDTEYGFLNL 121 RSVEGMYQSI DDLGNLFQRQ QEAKELRQQY QDYYRAFQAK RKGKKKPKVL ILMGLPGSYL 181 VATNQSYVGN LLDLAGGENV YQSDEKEFLS VNPEDMLAKE PDLILRTAHA IPDKVKVMFD 241 KEFAENDIWK HFTAVKEGKV YDLDNTLFGM SAKLNYPEAL DTLTQLFDHV GDHP (SEQ ID NO: 44)

## Figure 31

	1				50
ATCC700294	ATGTCACGTA	ГТССТААТАА	АСТААТТАСТ	ATGCCTGCAG	GCGTTGAATT
MGAS315	ATGTCACGTA	TTCCTAATAA	ΔΟΤΙΔΙΣΤΙΙΟΣ	ATGCCTGCAG	GCGTTGAATT
	ATGTCACGTA	TTCCTANTAN	NCTDDTTTTCT	ATGCCTGCAG	GCGTTGAATT
SSI-1	ATGTCACGTA				GCGTTGAATT
Manfredo	ATGTCACGTA ATGTCACGTA				GTGTTGAATT
MGAS8232	ATGTCACGTA	IIGGIAAIAA	AGIANITACI	Ardocracia	
	51				100
ATCC700294		AACAATGTTA	ттастсттаа	AGGCCCTAAA	GGCGAACTCA
MGAS315		AACAATGTTA		AGGCCCTAAA	
SSI-1	AACAAATAAC			AGGCCCTAAA	
Manfredo	AACAAATAAC				
	AACAAATAAC				
MGAS8232	AACAAATAAC	MCMIGIIM	IIACIGIIAA	110000011111	000024101011
	101				150
ATCC700294		CAACAAAAAT	ATTGAAATCA	AAGTTGAAGG	GACTGAAATC
MGAS315	CTCGTGAGTT			AAGTTGAAGG	GACTGAAATC
SSI-1	CTCGTGAGTT			AAGTTGAAGG	GACTGAAATC
Manfredo	CTCGTGAGTT			AAGTTGAAGG	GACTGAAATC
	CTCGTGAGTT			AAGTTGAAGG	
MGAS8232	CICGIGAGII	CAACAAAAAI	ATTOMATICA	ANGIIOANGG	GHOIGHEILO
	151				200
ATCC700294		GTCCTAACGA	CTCAAAAGAA	ATGAAAACAA	TCCATGGTAC
MGAS315					TCCATGGTAC
SSI-1					TCCATGGTAC
Manfredo					TCCATGGGAC
					TCCATGGTAC
MGAS8232	ACAGTTGTAC	GICCIAACGA	CICAAAAGAA	AIGNAAACAA	COLIGITAC
	201				250
ATCC700294		AACTTGAATA	ACATGGTTGT	AGGTGTTTCT	GAAGGTTTCA
MGAS315	AACCCGTGCT		ACATGGTTGT		
SSI-1	AACCCGTGCT		ACATGGTTGI		
Manfredo			ACATGGTTGT		
			ACATGGTTGT		
MGAS8232	AACCCGIGCI	AACIIGAAIA	ACAIGGIIGI	. Addidilici	. GAAGGIIIGII
	251				300
ATCC700294	AAAAAGATCT	TGAAATGAAG	GGTGTCGGT	ACCGTGCTC	ACTTCAAGGT
MGAS315	AAAAAGATCT	TGAAATGAAG			ACTTCAAGGT
SSI-1	AAAAAGATCT		GGTGTCGGT		ACTTCAAGGT
	AAAAAGATCT				ACTTCAAGGT
Manfredo			GGTGTCGGT		ACTTCAAGGT
MGAS8232	AAAAAGATCT	TGAAATGAA	GGIGICGGI.	ACCGIGCICA	ACTIONNOOL
	301				350
ATCC700294		ייירכיייייר אכי	י אכפיאאאירטי	r CACCAAGAC	G AAGTTGAAGC
MGAS315					S AAGTTGAAGC
					G AAGTTGAAGC
SSI-1	ACTAAACTIC	, mccmmmcac	T ACCUANATO	T CACCAAGAC	G AAGTTGAAGC
Manfredo	ACTAAACTTC	TCCTTTCAG	r vechyyymer	T CACCAAGAC	G AAGTTGAAGC
MGAS8232	ACTAAACTTC	TCCTTTCAG	r AGGTAAATC	1 CACCAAGAC	G AMGIIGAMGC
	351				400
ATCC700294		ላ <b>አ</b> ጥጥልርጥጥጥር	ч Ст <u>сттсст</u> а	A CCCAACTTC	A ATCTCAGTTG
MGAS315	TOCAGAAGGE	7 717 713 CT T T C	д СТСТТОСТА В СТСТТССТВ	A CCCAACTTC	A ATCTCAGTTG
	TOCHGHAGGE	/ VAMPCHAMC	A CTCTIGCIA	A CCCAACTTC	A ATCTCAGTTG
SSI-1	TOCAGAAGGA	/ VMMVCMMMC	V CACAACCAY	7. CCC/372CIIC	A ATCTCAGTTG
Manfredo	TOUAGAAGG	A ATTACTIO	V CACALACCAY	A CCCAACIIC	A ATCTCAGTTG
MGAS8232	TCCAGAAGGA	A ATTACTTC	W CIGITACIA	A CCCWWCIIC	Y VICTORGIIG

## Figure 31 (continued)

	•					
		401				450
	ATCC700294	AAGGAATCAA	CAAAGAAGTT	GTTGGTCAAA	CAGCTGCTTA	CATCCGTAGC
	MGAS315	AAGGAATCAA	CAAAGAAGTT	GTTGGTCAAA	CAGCTGCTTA	CATCCGTAGC
	SSI-1	AAGGAATCAA	CAAAGAAGTT	GTTGGTCAAA	CAGCTGCTTA	CATCCGTAGC
	Manfredo	AAGGAATCAA	CAAAGAAGTT	GTTGGTCAAA	CAGCTGCTTA	CATCCGTAGC
	MGAS8232	AAGGAATCAA	CAAAGAAGTT	GTTGGTCAAA	CAGCTGCTTA	CATCCGTAGC
	MGW20272	MOGINITOINI	011110111011	01100101		
		451				500
	*****************	TTGCGTTCAC	CACACCCTTA	CDDDGCCDDD	GGGATCCGTT	ACGTTGGTGA
	ATCC700294	TTGCGTTCAC	CAGAGCCIIA	CAMAGGCAAA	CCCATCCCTT	ACGTTGGTGA
	MGAS315	TIGCGTTCAC	CAGAGCCTIA	CAMAGGCAAA	GGGATCCGTT	ACCTTCCTCA ACCTTCCTCA
	SSI-1	TTGCGTTCAC	CAGAGCCTIA	CAAAGGCAAA	GGGATCCGTT	ACCTTCCTCA
	Manfredo	TTGCGTTCAC	CAGAGCCTTA	CAAAGCCAAA	GGGATCCGTT	ACCTTCCTCA
	MGAS8232	TTGCGTTCAC	CAGAGCCTTA	CAAAGGCAAA	GGGATCCGTT	MCGIIGGIGA
					537	
		501			- '	
	ATCC700294	ATACGTACGC				
	MGAS315	ATACGTACGC				
	SSI-1	ATACGTACGC				
	Manfredo	ATACGTACGC				
	MGAS8232	ATACGTACGC	CTTAAAGAAG	GTAAAACAGG	TAAATAA	
Fi	gure 32					
	_	1				50
	ATCC700294	MSRIGNKVIT	MPAGVELTNN	NNVITVKGPK	GELTREFNKN	IEIKVEGTEI
	MGAS915	MSRIGNKVIT	MPAGVELTNN	NNVITVKGPK	GELTREFNKN	IEIKVEGTEI
	SSI-1	MSRIGNKVIT	MPAGVELTNN	NNVITVKGPK	GELTREFNKN	IEIKVEGTEI
	Manfredo	MSRIGNKVIT	MPAGVELTNN	NNVITVKGPK	GELTREFNKN	IEIKVEGTEI
	MGAS8232	MSRIGNKVIT	MPAGVELTNN	NNVITVKGPK	GELTREFNKN	IEIKVEGTEI
		51				100
	ATCC700294	TVVRPNDSKE	MKTIHGTTRA	NLNNMVVGVS	EGFKKDLEMK	GVGYRAQLQG
	MGAS315	TWEENDSKE	MKTTHGTTRA	NINNMVVGVS	EGFKKDLEMK	GVGYRAQLQG
	SSI-1	TYVIDDNIDGKE	MKTTHGTTRA	NINNMVVGVS	EGFKKDLEMK	GVGYRAQLQG
		TANKEMPONT	MKTTHCTTR	NINNMVVGVS	EGEKKDLEMK	GVGYRAQLQG
	Manfredo	TAAVENDRICKE	METHOTTE	NT.NNMVVGVS	EGEKKDLEMK	GVGYRAQLQG
	MGAS8232	IAAKEMDSKE	MILLINGILIN	MINIMINA	DOLIMBER	
		101				150
		101	UODEKEN DEC	ייים מוצע מוציים מודיי	TOVECTNEEL	VGQTAAYIRS
	ATCC700294	TKLVLSVGKS	HQDEVEAPEC	TILIVANET	TOVECTNIKE!	VGQTAAYIRS
	MGAS315	TKLVLSVGKS	HODEVEAPE	TETVAMPI	TOVECTNIES	TICOTATITIES
	SSI-1	TKLVLSVGKS	HODEVEAPE	5 ITETVANPT	2 TOVECTNEE	VGQTAAYIRS
	Manfredo	TKLVLSVGKS	HQDEVEAPE	3 ITETVANPT	2 TOARGINER	VGQTAAYIRS
	MGAS8232	TKLVLSVGKS	HQDEVEAPE	3 ITETVANPT	3 ISAEGINKE	/ VGQTAAYIRS
					2	
		151		17:	<b>d</b>	
	ATCC700294		GIRYVGEYV			
	MGAS315		GIRYVGEYV			
	SSI-1		GIRYVGEYV			
	Manfredo		GIRYVGEYV			
	MGAS8232	LRSPEPYKGE	GIRYVGEYV	R LKEGKTGK		

Figure 33					
	1				50
ATCC700294	ATGTTTCAGT T	AAGAAAAAA	AATGACGCGC	AAACAATTAG	CCTTGTTGAG
MGAS315				AAACAATTAG	
SSI-1	ATGTTTCAGT T	AAGAAAAA	AATGACGCGC	AAACAATTAG	CCTTGTTGAG
Manfredo	ATGTTTCAGT T.	AAGAAAAAA	AATGACGCGC	AAACAATTAG	CCTTGTTGAG
MGAS8232	ATGTTTCAGT T	AAGAAAAA	AATGACGCGC	AAACAATTAG	CCTTGTTGAG
	51				100
ATCC700294	TGCTGGAGTG T	TGACCTGTG	TGGTTGGTGG	TAGCTACTTG	ATAATGAACC
MGAS315	TGCTGGAGTG T	TGACCTGTG	TGGTTGGTGG	TAGCTACTTG	ATAATGAACC
SSI-1	TGCTGGAGTG T	TGACCTGTG	TGGTTGGTGG	TAGCTACTTG	ATAATGAACC
Manfredo	TGCTGGAGTG T	TGACCTGTG	TGGTTGGTGG		
MGAS8232	TGCTGGAGTG T	TGACCTGTG	TGGTTGGTGG	TACCTACTTG	ATAATGAATC
	101				150
ATCC700294	ATCAACAACA A	GAAATTGTC	TCTAGTGTCA	ACAAAGTAAA	AGCCTTAACC
MGAS315	ATCAACAACA A				
SSI-1	ATCAACAACA				
Manfredo	ATCAACAACA A				
MGAS8232	ATCAACAACA				
					200
	151 ATAAAAGAAG		7.CC7777C7M	7 m C 7 C C m m C 7	
ATCC700294	ATAAAAGAAG (	CCATGGAACA	AGGAAAAGAT	ATCAGCTIGA	CCTTAGCTGG
MGAS315	ATAAAAGAAG (	CCATGGAACA	AGGAAAAGAI	ATCAGCITGA	CCTTAGCTGG
SSI-1	ATAAAAGAAG (				
Manfredo	ATAAAAGAAG (				
MGAS8232	ATAAAAAAA (	CCAIGGAACA	AGGAAAAGA1	AICAGCIIGI	00111100100
	201				250
ATCC700294	CGAAGTAACA				
MGAS315	CGAAGTAACA				
SSI-1	CGAAGTAACA				
Manfredo	CGAAGTAACA				
MGAS8232	CGAAGTAACA	GCTAACAACA	GCAGCAAAG'I	CAAAATCGAC	CAAGTAAAG
	251				300
ATCC700294	GAGAAGTCAA	AGAGGTCTTT	GTTAAAAAAA	GCGATGTTGT	CAAAGTAGGA
MGAS315	GAGAAGTCAA	AGAGGTCTTT	GTTAAAAAAA	GCGATGTTG1	CAAAGTAGGA
ssi-1	GAGAAGTCAA	AGAGGTCTTI		G GCGATGTTGT	
Manfredo	GAGAAGTCAA			G GCGATGTTGT	
MGAS8232	GAGAAGTCAA	AGATGTCTTT	GTCAAAAAA	GCGATGTTG1	CAAAGTAGGA
	301				350
ATCC700294		TTAGCTATGA	AACGTCACAG	G CGGTTAACG	G CTCAAAGTTC
MGAS315					G CTCAAAGTTC
SSI-1					G CTCAAAGTTC
Manfredo	CAACCCTTGT	TTAGCTATGA	A AACGTCACA	G CGGTTAACG	G CTCAAAGTTC
MGAS8232	CAACCCTTGT	TTAGCTATG	A AACGTCACA	A CGGTTAACG	G CTCAAAGTTC
	351				400
ATCC700294		GTTCAAACC	A AAGCCAATC	A GCTCCAAGT	T GCTAAAACCA
MGAS315					T GCTAAAACCA
SSI-1	AGAATTTGAT	GTTCAAACC	A AAGCCAATC	A GCTCCAAGT	T GCTAAAACCA
Manfredo	AGAATTTGAT	GTTCAAACC	A AAGCCAATC	A ACTCCAAGT	T GCTAAAACCA
MGAS8232	AGAATTTGAT	GTTCAAACC	A AAGCCAATC	A ACTCCAAGT	T GCTAAAACCA

Figure 33 (continued)

	401				450
ATCC700294		GAAGTGGGAA	ACCTACAATC	GCAAGGTCAA	TGAAATCAAC
MGAS315		GAAGTGGGAA		GCAAGGTCAA	
SSI-1		GAAGTGGGAA		GCAAGGTCAA	
Manfredo	ATGCAGCATT	GAAGTGGGAA	ACCTACAATC	GCAAGGTCAA	TGAAATCAAC
MGAS8232		GAAGTGGGAA		GCAAGGTCAA	TGAAATCAAT
	451				500
ATCC700294	ACCCTAAAAT	CTCGCTACAA	CACTGCACCA	GATGAGAGCT	TACTAGAGCA
MGAS315			CACTGCACCA		TACTAGAGCA
SSI-1			CACTGCACCA		TACTAGAGCA
Manfredo			CACTGCACCA		TACTAGAGCA
MGAS8232	ACCCTAAAAT	CTCGCTACAA	CACTGCACCA	GATGAGAGCT	TACTAGAGCA
	E01				550
7 mcc700204	501 AATTCGCAGC	CCACAACACA	CTCTATCCCA	ACCACTA ACC	GATGCCAAAA
ATCC700294 MGAS315	AATTCGCAGC				GATGCCAAAA
SSI-1	AATTCGCAGC				GATGCCAAAA
Manfredo				AGCACTAAGC	GATGCCAAAA
MGAS8232				AGCACTAAGC	GATGCCAAAA
MGASUZSZ	AMITOCAGO	Geriorationeri	010111101011	11001101111100	0.110001222
	551				600
ATCC700294	CAGCAGATAG	CGATGTCAAA	ACCGCTCAAA	TCGAACTCGA	TAAAGCTAAT
MGAS315	CAGCAGATAG	CGATGTCAAA	ACCGCTCAAA	TCGAACTCGA	TAAAGCTAAT
SSI-1	CAGCAGATAG	CGATGTCAAA	ACCGCTCAAA	TCGAACTCGA	TAAAGCTAAT
Manfredo	CAGCAGATAG	CGATGTCAAA	ACCGCTCAAA	TCGAACTCGA	TAAAGCTAAT
MGAS8232	CAGCAGATAG	CGATGTCAAA	ACCGCTCAAA	TCGAACTCGA	TAAAGCTAAT
					650
	601	0770007777	7. CCM7 7. 7. CM7	C N C M N M C N C N	650
ATCC700294					CCGTTAAGTC CCGTTAAGTC
MGAS315					CCGTTAAGTC
SSI-1 Manfredo					CCGTTAAGTC
MGAS8232					CCGTTAAGTC
MGADUZUZ	GCIMCIGCCG	CINICOCINAN	1100111111011	01101111101101	
	651				700
ATCC700294		GGAACCATTO	TTAGTCTAAF	TACTGATTT	CCAAATCAAT
MGAS315	AGACACCGCA	GGAACCATTO	TTAGTCTAA	TACTGATTT	CCAAATCAAT
SSI-1	AGACACCGCA	GGAACCATTO	TTAGTCTAAA	A TACTGATTTO	CCAAATCAAT
Manfredo	AGACACCGCA	GGAACCATTO	TTAGCCTAA	A TACTGATTTO	CCAAATCAAT
MGAS8232	AGACACCGCA	GGAACCATTO	TTAGTCTAA	A TACTGATTTO	CCAAATCAAT
	701				750
ATCC700294					CGACAAATCA
MGAS315					CGACAAATCA
SSI-1					r cgacaaatca r cgacaaatca
Manfredo MGAS8232					r CGACAAATCA
MGHOGADZ	CAMAMICCAM	nnnnunnnn.	i GAAACIITI	A IGGANAIIA	CONCHARTOR
	751				800
ATCC700294		TCAAAGGTA	A CATTAGTGA	A TTTGACCGT	G ACAAGTTAAA
MGAS315					G ACAAGTTAAA
SSI-1					G ACAAGTTAAA
Manfredo					G ACAAGTTAAA
MGAS8232	AAAATGTTAG	TCAAAGGTA	A CATCAGTGA	A TTTGACCGT	G ACAAGTTAAA

# Figure 33 (continued)

	001				850
	801	*******	mcammea coc	annacaana	TCTAAAAAAT
ATCC700294	AATCGGTCAA A		TGATTGACCG		TCTAAAAAAT
MGAS315	AATCGGTCAA A		TGATTGACCG		TCTAAAAAAT
SSI-1	AATCGGTCAA A		TGATTGACCG		TCTAAAAAAT
Manfredo	AATCGATCAA A		TGATTGACCG		
MGAS8232	AATCGATCAA A	AAAGTCGAAG	TGATTGACCG	CAAAGACAAC	TCTAAAAAAT
	851				900
»maa300004	GGACTGGAAA	7 CT7 7 CCC7 7	CTTCCCNACC	TCAAAGCAGA	
ATCC700294	GGACTGGAAA			TCAAAGCAGA	
MGAS315	GGACTGGAAA			TCAAAGCAGA	GGAAAAAGGC
SSI-1				TCAAAGCAGA	
Manfredo	GGACTGGAAA				•
MGAS8232	GGACTGGAAA .	AGTAACCCAA	GTTGGCAACC	TCAAAGCAGA	GGAAAAAGGC
	901				950
ATCC700294	CAAGGTCAAG	GCCAAGGTGG	CAATGACCAA	CAAGATAATC	CAAACCAAGC
MGAS315				CAAGATAATC	CAAACCAAGC
SSI-1	<b>U</b>			CAAGATAATC	CAAACCAAGC
				CAAGACAATC	CAAACCAAGC
Manfredo				CAAGATAATC	CAAACCAAGC
MGAS8232	CAAGGTCAAG	GCCAAGGIGG	CAATGACCAA	CANGAIAAIC	CHARCOARGO
	951				1000
ATCC700294	AAAATTCCCT	TATGTTATTG	AACTTGACCA	ATCAGACAAG	CAGCCACTCA
MGAS315	AAAATTCCCT	TATGTTATTG	AACTTGACCA	ATCAGACAAG	CAGCCACTCA
SSI-1	AAAATTCCCT			ATCAGACAAG	
Manfredo	AAAATTCCCT			ATCAGACAAG	
MGAS8232	AAAATTCCCT			ATCAGACAAG	
MGADOZOZ	AAAATTCCCT	INIGIINICO	AMOI TOMOOM		0000
	1001				1050
ATCC700294	TTGGCTCACA	CACCTATGTT	AATGTGCTCA	ACAATGTTCC	AGAAGCTGGC
MGAS315	TTGGCTCACA	CACCTATGTT	AATGTACTCA	ACAATGTTCC	AGAAGCTGGC
SSI-1	TTGGCTCACA	CACCTATGTT	AATGTACTCA	ACAATGTTCC	AGAAGCTGGC
Manfredo	=	CACCTATGTT		ACAATGTTCC	AGAAGCTGGC
MGAS8232	TTGGTTCACA				AGAAGCTGGC
MGASUZSZ	110011011011	0.10011.1011			
	1051				1100
ATCC700294	AAGATCGTAT	TGAAAGAAAC	CTTTACAAT	G GCAGAAAAT	GAAAAACCTA
MGAS315	AAGATCGTAT	TGAAAGAAAC	CTTTACAATO	G GCAGAAAATO	GAAAAACCTA
SSI-1	AAGATCGTAT	TGAAAGAAAC	CTTTACAAT	GCAGAAAAT	GAAAAACCTA
Manfredo	AAGATCGTAT	TGAAAGAAAC	CTTTACAAT	G GCAGAAAATO	GAAAAACCTA
MGAS8232	AAGATCGTAT	TGAAAGAAAC	CTTTACAAT	G GCAGAAAAT	GAAAAACCTA
	1101				1150
ATCC700294	TGTGTGGAAA	. GTTGATAAA	A ACAAGGTCA	a aaaacaaga	ATCAAGACTA
MGAS315	TGTGTGGAAA	. GTTGATAAA!	A ACAAGGTCA	a aaaacaaga	A ATCAAGACTA
SSI-1	TGTGTGGAAA	GTTGATAAA	A ACAAGGTCA	a aaaacaaga	A ATCAAGACTA
Manfredo	TGTGTGGAAA	GTTGATAAA	A ACAAGGTCA	A AAAACAAGA	A ATCAAGACTA
MGAS8232	TGTGTGGAAA	GTTGATAAA	A ACAAGGTCA	A AAAACAAGA	A ATCAAGACTA
	4454	•			1200
	1151			N	
Manfredo	AGCCCTTCTC	AAAAGGTTA	r GTTGAGGTA	A CAAGTGGCT	T GACTATGCAA
MGAS315	AGCCCTTCTC	AAAAGGTTA'	r GTTGAGGTA	A CAAGTGGCT	T GACTATGCAA
SSI-1	AGCCCTTCTC	: AAAAGGTTA	r GTTGAGGTA	A CAAGTGGCT	T GACTATGCAA
Manfredo	AGCCCTTCTC	AAAAGGTTA	r GTTGAGGTG	A CAAGTGGCT	T GACTATGCAA
MGAS8232	AGCCCTTCTC	: AAAAGGTTA	T GTTGAGGTG	A CAAGCGGCT	T GACTATGCAA

## Figure 33 (continued)

riguic so (s	,				
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	1201 GATAAGATTG C GATAAGATTG C GATAAGATTG C GATAAGATTG C GATAAGATTG C	TCAGCCGCT TCAGCCGCT TCAGCCGCT	TCCTGGCATG : TCCTGGCATG : TCCTGGCATG :	AAAGACGGTA : AAAGACGGTA : AAAGACGGTA :	PGATGBAGG PGGAGGTAGG PGATGGAGGTAGG
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	1251 AAGTATTGTT AAGTATTGTT AAGTATTGTT AAGTATTGTT AAGTATTGTT AAGTATTGTT A	AAACCTTAA AAACCTTAA AAACCTTAA	9		
Figure 34	1			TANKAGORTA	50
ATCC700294 MGAS315	MFQLRKKMTR	KOTATTSAGV	LTCVVGGSYL	IMNHQQQEIV	SSVNKVKALT
SSI-1	MFOLRKKMTR	KQLALLSAGV	LTCVVGGSYL	IMNHQQQEIV	SSVNKVKALT
Manfredo	MFQLRKKMTR	KQLALLSAGV	LTCVVGGSYL	IMNHQQQEVV	SSVNKVKALT
MGAS8232	MFQLRKKMTR	KQLALLSAGV	LTCVVGGTYL	IMNHQQQEIV	SSVNKVKALT
	51				100
ATCC700294		TSLTLAGEVT	ANNSSKVKID	SSKGEVKEVF	
MGAS315	IKEAMEQGKD	ISLTLAGEVT	ANNSSKVKID	SSKGEVKEVF	VKKGDVVKVG
SSI-1	IKEAMEQGKD	ISLTLAGEVT	ANNSSKVKID	SSKGEVKEVF	VKKGDVVKVG
Manfredo	IKEAMEQGKD	ISLTLAGEVT	ANNSSKVKID	SSKGEVKEVF	VKKGDVVKVG
MGAS8232	IKEAMEQGKD	ISLTLAGEVT	ANNSSKVKID	SSKGEVKDVF	VKKGDVVKVG
	101				150
ATCC700294	QPLFSYETSQ	RLTAQSSEFE	VQTKANQLQV	AKTNAALKWE	TYNRKVNEIN
MGAS315	QPLFSYETSQ	RLTAQSSEF	VQTKANQLQV	AKTNAALKWE	TYNRKVNEIN
SSI-1	QPLFSYETSQ	RLTAQSSEF	VQTKANQLQV	AKTNAALKWE	TYNRKVNEIN
Manfredo	QPLFSYETSQ	RLTAQSSEFI	) VQTKANQLQV	AKTNAALKWE	TINKKVNEIN
MGAS8232	QPL51E13Q	KHIAQSSEEL	, AĞITAMĞDĞA	mummm	2 22/2/2/ 2/2/2/
	151				200
ATCC700294	TLKSRYNTAP	DESLLEQIRS	AEDSVSQALS	DAKTADSDVK	TAQIELDKAN
MGAS315	TLKSRYNTAP	DESLLEQIRS	AEDSVSQALS	DAKTADSDVK	TAQIELDKAN
SSI-1 Manfredo	TLKSRYNTAP	DESTIEOTE	S AEDSVSQALS	DAKTADSOVK	TAQIELDKAN TAQIELDKAN
MGAS8232	TLKSRYNTAP	DESLLEQIA	S AEDSVSQALS	DAKTADSDVK	TAQIELDKAN
	201				250
ATCC700294	ATATTEKGKL	EYDTVKSDT	A CALASTMAN	DNOSKSKKEN	ETFMEIIDKS ETFMEIIDKS
MGAS315 SSI-1	ATATTERGRE	EYDTVKSDI	A GTIVSLNIDI A GTIVSLNIDI	D PNOSKSKKEN	ETFMEIIDKS
Manfredo	ATATMEKGKL	EYDTVKSDT	A GTIVSLNTDI	DNQSKSKKEN	ETFMEIIDKS
MGAS8232	ATAATEKGKL	EYDTVKSDT	A GTIVSLNTD	L PNQSKSKKEN	ETFMEIIDKS
	251				300
ATCC700294	KMLVKGNISE	FDRDKLKIG	O KVEVIDRKDI	N SKKWTGKVTC	VGNLKAEEKG
MGAS315	KMLVKGNISE	FDRDKLKIG	Q KVEVIDRKDI	N SKKWTGKVTÇ	VGNLKAEEKG
SSI-1	KMLVKGNISE	FDRDKLKIG	Q KVEVIDRKDI	N SKKWTGKVT	VGNLKAEEKG
Manfredo	KMLVKGNISE	FDRDKLKID	Q KVEVIDRKD	N SKKWTGKVTQ	VGNLKAEEKG
MGAS8232	KMLVKGNISE	FOKOKPKID	Õ KAEATDKKDI	N SKKWTGKVT	VGNLKAEEKG

## Figure 34 (continued)

	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	QGQGQGGNDQ QGQGQGGNDQ	QDNPNQAKFP QDNPNQAKFP	YVIELDQSDK YVIELDQSDK YVIELDQSDK	QPLIGSHTYV QPLIGSHTYV QPLIGSHTYV QPLIGSHTYV QPLIGSHTYV	NVLNNVPEAG NVLNNVPEAG NVLNNVPEAG
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	KIVLKETFTM KIVLKETFTM KIVLKETFTM	AENGKTYVWK AENGKTYVWK	VDKNKVKKQE VDKNKVKKQE	IKTKPFSKGY IKTKPFSKGY IKTKPFSKGY IKTKPFSKGY IKTKPFSKGY	VEVTSGLTMQ VEVTSGLTMQ VEVTSGLTMQ
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	DKIAQPLPGM DKIAQPLPGM DKIAQPLPGM	KDGMEVGSIV KDGMEVGSIV KDGMEVGSIV KDGMEVGSIV KDGMEVGSIV	KP KP KP		
· Fi	gure 35					
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	ATGATAAAAC ATGATAAAAC ATGATAAAAC	GATGTAAAGG GATGTAAAGG GATGTAAAGG	AATTGGTCTA AATTGGTCTA AATTGGTCTA	GCCTTAATGG GTCTTAATGG GTCTTAATGG GCCTTAATGG GTCTTAATGG	CCTTCTTTTT CCTTCTTTTT CCTTCTTTTT
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	GGTAGCTTGT GGTAGCTTGT GGTAGCTTGT	GTAAATCAGC GTAAATCAGC GTGAATCAGC	ACCCTAAAAC ACCCTAAAAC ACCCTAAAAC	GGCTAAAGAG GGCTAAAGAG GGCTAAAGAG GGCTAAAGAG GGCTAAAGAG	ACTGAACAGC ACTGAACAGC ACTGAACAGC
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	AGAGAATTGT AGAGAATTGT AGAGAATTGT	AGCCACTTCG AGCCACTTCG AGCCACTTCG	GTTGCTGTGG GTTGCTGTGG GTTGCTGTGG	TTGATATCTG TTGATATCTG TTGATATCTG TTGATATCTG	TGACCGTTTA TGACCGTTTA TGACCGTTTA
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	AATTTAGACC AATTTAGACC AATTTAGACC	TCGTTGGGGT TCGTTGGGGT TCGTTGGGGT	TTGTGATAGT TTGTGATAGT TTGTGATAGT	AAATTATATA AAATTATATA AAATTATATA	200 CCCTTCCTAA CCCTTCCTAA CCCTTCCTAA CCCTTCCTAA
	ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	ACGCTATGAT ACGCTATGAT ACGCTATGAT	GCTGTTAAGC GCTGTTAAGC GCTGTTAAGC	GTGTGGGTTT GTGTGGGTTT GTGTGGGTTT	ACCCATGAAT ACCCATGAAT	CCTGATATAG CCTGATATAG

## Figure 35 (continued)

	` <u> </u>				
	251				300
ATCC700294	AGTTGATTGC	TTCTTTGAAA	CCAACTTGGA	TTTTGAGTCC	CAATTCTTTA
MGAS315	AGTTGATTGC		CCAACTTGGA	TTTTGAGTCC	
SSI-1	AGTTGATTGC	TTCTTTGAAA		TTTTGAGTCC	CAATTCTTTA
Manfredo	AGTTGATTGC	TTCTTTGAAA		TTTTGAGTCC	CAATTCTTTA
MGAS8232	AGTTGATTGC	TTCTTTGAAA	CCAACTTGGA	TTTTGAGTCC	CAATTCTTTA
	301				350
ATCC700294	CAAGAAGATT	TGGAACCCAA	GTATCAAAAA	ΨΨαςΔΨΔΟΨα	
MGAS315	CAAGAAGATT		GTATCAAAAA		
SSI-1	CAAGAAGATT		GTATCAAAAA		AGTATGGTTT
Manfredo	CAAGAAGATT		GTATCAAAAA		AGTATGGTTT
MGAS8232	CAAGAAGATT	TGGAACCCAA	GTATCAAAAA	TTGGATACTG	AGTATGGTTT
	351				400
ATCC700294	TTTGAACTTA	ССАВСТСТТС	AGGGCATGTA	CCACTCCATT	GATGATTTAG
MGAS315					
<del>-</del>	TTTGAACTTA		AGGGCATGTA		GATGATTTAG
SSI-1	TTTGAACTTA	CGAAGTGTTG	AGGGCATGTA	CCAGTCTATT	GATGATTTAG
Manfredo	TTTGAACTTA	CGAAGTGTTG	AGGGCATGTA	CCAGTCCATT	GATGATTTAG
MGAS8232	TTTGAACTTA	CGAAGTGTTG	AGGGCATGTA	CCAGTCTATT	GATGATTTAG
	401				450
ATCC700294	GGAACCTTTT	CCNNCCTCNN	CAAGAAGCAA	33C33MMCCC	
MGAS315	GGAACCTTTT		CAAGAAGCAA		
SSI-1	GGAACCTTTT	CCAACGTCAA	CAAGAAGCAA	AAGAATTGCG	CCAGCAATAC
Manfredo	GGAACCTTTT	CCAACGTCAA	CAAGAAGCAA	AAGAATTGCG	CCAGCAATAC
MGAS8232	GGAACCTTTT	CCAACGTCAA	CAACAACCAA	**C*******	CONCONNENC
	COUNCLITI	COULCRIC	CAMUMAGCAA	AAGAATTGCG	CCAGCAATAC
1101100202	GGAACCIIII	CCAACGICAA	CAAGAAGCAA	AAGAATTGCG	CCAGCAATAC
1101100202		COARCGICAA	CAAGAAGCAA	AAGAATTGCG	
	451				500
ATCC700294	451 CAGGACTATT	ATCGTGCTTT	CCAAGCTAAA	CGTAAGGGGA	500 AGAAAAAGCC
ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC
ATCC700294	451 CAGGACTATT	ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1	451 CAGGACTATT CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA CGCAAGGGGA CGTAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA CGCAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA CGCAAGGGGA CGTAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGGA CGCAAGGGGA CGCAAGGGGA CGTAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG	CGTAAGGGGA CGCAAGGGGA CGCAAGGGGA CGTAAGGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC GTGGCGACGA GTGGCGACGA GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC GTGGCGACGA GTGGCGACGA GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT AAAGTGCTT ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTTGCACT CTTTTGGACT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT ACCAATCTTA ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG TGTAGGGAAT TGTAGGGAAT TGTAGGGAAT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTTGGACT CTTTTGGACT CTTTTGGACT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA TGAGAATGTT TGAGAATGTT TGAGAATGTT
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT AAAGTGCTT ACCAATCTTA ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG ATTCTTATGG TGTAGGGAAT TGTAGGGAAT TGTAGGGAAT	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTTGGACT CTTTTGGACT CTTTTGGACT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA
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ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT AACCAATCTTA ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG A	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTTGACT CTTTTTTTTTT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA TAGTTATTTG GGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG TGGCAGGTGG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT AGAGAATGTT AAGACATGCT AAGACATGCT
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG A	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTTGACT CTTTTTTTTTT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG GGCAGGTGG TGGCAGGTGG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT AGACATGCT AAGACATGCT AAGACATGCT
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232 ATCC700294 MGAS8232	451 CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT CAGGACTATT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT TAAAGTGCTT ACCAATCTTA	ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCGTGCTTT ATCTTATGG ATTCTTATGG A	CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA CCAAGCTAAA GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTGCCAGG GCTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTGGACT CTTTTTGACT CTTTTTTTTTT	CGTAAGGGA CGCAAGGGA CGCAAGGGA CGCAAGGGA CGTAAGGGA CGTAAGGGA TAGTTATTTG GGCAGGTGG TGGCAGGTGG	500 AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC AGAAAAAGCC  550 GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA GTGGCGACGA TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT TGAGAATGTT AGAGAATGTT AAGACATGCT AAGACATGCT
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## Figure 35 (continued)

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	3 maa maa aa aa aa	651				700
	ATCC700294	GGCTAAGGAG	CCTGACTTGA	TTTTACGAAC	AGCTCATGCC	ATTCCAGACA
	MGAS315	AGCTAAGGAG	CCTGACTTGA	TTTTACGAAC	AGCTCACGCC	ATTCCAGACA
	SSI-1				AGCTCACGCC	
	Manfredo				AGCTCACGCC	
	MGAS8232	AGCTAAGGAG	CCTGACTTGA	TTTTACGAAC	AGCTCACGCC	ATTCCAGACA
		701				750
	ATCC700294	AGGTAAAAGT	GATGTTTGAC	AAAGAATTTG	CTGAAAATGA	TATTTGGAAA
	MGAS315	AGGTAAAAGT	GATGTTTGAC	AAAGAATTTG	CTGAAAATGA	TATTTGGAAA
	SSI-1				CTGAAAATGA	
	Manfredo				CTGAAAATGA	
	MGAS8232				CTGAAAATGA	
		751				800
	ATCC700294	CATTTTACGG	CAGTCAAGGA	AGGGAAAGTC	TATGATTTGG	
	MGAS315	CATTTTACGG	CAGTCAAGGA	AGGGAAAGTC	TATGATTTGG	ACAATACCCT
	SSI-1				TATGATTTGG	
	Manfredo	CATTTTACGG	CAGTCAAGGA	AGGGAAAGTC	TATGATTTGG	ACAATACCCT
	MGAS8232				TATGATTTGG	
			0.10101110011	11000HH01C	THIGHTIIGG	ACAATACCCI
		801				850
	ATCC700294		AGTGCTAAAT	ጥርልልሮሞልሮሮሮ	AGAAGCCTTG	
	MGAS315			TGAACTACCC	AGAAGCCTTG	CACACCTIAA
	SSI-1				AGAAGCCTTG	
	Manfredo	CTTTCCCATC	ACTCCTAAAT	TGAACTACCC	AGAAGCCTTG	CACACCITAA
	MGAS8232		AGTGCTAAAT		AGAAGCCTTG	
	MONDUZUZ	GIIIGGCAIG	AGIGCIAAAI	IGAACIACCC	AGAAGCCTTG	GACACCTTAA
		851			885	
	ATCC700294		TGACCACGTG	CCACATCATC		
	MGAS315	CACAGCTTTT		GGAGATCATC		
	SSI-1		TGACCACGTG			
	Manfredo					
	MGAS8232		TGACCGCGTG			
	MGAS0Z3Z	CACAGCTTTT	TGACCACGTG	GGAGATCATC	CGTAA	
						•
Fi	gure 36					
	3	1				50
	ATCC700294	MIKRCKGIGL	ALMAFFIVAC	VNOHPKTAKE	TEQQRIVATS	VAVVDTCDBI.
	MGAS315	MIKRCKGIGI	VIMAFFLVAC	AMOHDKAVKE	TEQQETARIS	VAVVDICDRL
	SSI-1	MIKRCKGIGI	VI.MAFFI.VAC	AMONDRAVE	TEQQUETVATE	VAVVDICDRL
	Manfredo	MIKRCKGIGE	ALMAFFI.VAC	AMONDRAVE	TEQUETRATE	VAVVDICDRL
	MGAS8232	MIKECKGIGI.	WI.MAREI.WAC	ANGHEKTAKE	TEÄÄVIANIO	VAVVDICDRL
	1101100232	MINICHOLGE	ADDATEDANC	ANGUENTAVE	TEQQKI VATS	VAVVDICDKL
		51				100
	ATCC700294		KI.VTI.DKDVD	AUCDUCT DMM	DDTELTAGER	PTWILSPNSL
	MGAS315	MIDIAGACDS	KIAMIDEKKID	AVARVGLEMN	PDIETINGTK	PTWILSPNSL
	SSI-1	MIDINGVCDS	KI AMI DEKKID	AVKRYGLEMN	PDIETISTK	PTWILSPNSL
	Manfredo	NI DI VCVCDO	KILLERKID	AVARVGLEMN	PDIEDIASEK	PTWILSPNSL
	MGAS8232	MIDIVGVCDS	VPII TEVKID	AVKKVGLPMN	PDIEDIASLK	PTWILSPNSL
	HONDUZJZ	MUDIAGACOS	VULLIPLYKID	AVKKVGLPMN	<b>FDTEPTASPK</b>	PTWILSPNSL
		101				150
	ATCC700294		T.DTEVCET AT	Dettechnoca	DDI GNI BARA	150
	MGAS315	VEDITE DRAVA SENTE EVIÑY	TUMBACELYL	V2 A FRITARI	DDI CM ECKÖ	QEAKELRQQY
	SSI-1	OBDI'EBRAOR APPREEVIÄY	1.レルとへいた かよっちょうけい ひょうしょう	VOAT GWI TOST	DDICATEORO	QEAKELRQQY
	Manfredo	VENTEBRACE ZENTERVIÑY	TUMEACETAI	VECALOR OF	DDLGNLFQRQ	QEAKELRQQY
	MGAS8232	SEDIE EDRACA SEDIE EVIÑY	TUMBAGETME	V2AFGWIÖ2T	DDICNTLOKO	QEAKELRQQY
	HONDUZUZ	Zennekvi Žv	TINTERGETUT	V2 AFRWIÖRT	DDTGNTF.ÖKÖ	QEAKELRQQY

## Figure 36 (continued)

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ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	Z	RKGKKKPKVL RKGKKKPKVL	ILMGLPGSYL ILMGLPGSYL ILMGLPGSYL ILMGLPGSYL	VATNQSYVGN VATNQSYVGN VATNQSYVGN VATNQSYVGN VATNQSYVGN	200 LLDLAGGENV LLDLAGGENV LLDLAGGENV LLDLAGGENV
					250
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	201 YQSDEKEFLS YQSDEKEFLS YQSDEKEFLS YQSDEKEFLS	ANPEDMLAKE VNPEDMLAKE VNPEDMLAKE ANPEDMLAKE VNPEDMLAKE	PDLILRTAHA PDLILRTAHA PDLILRTAHA PDLILRTAHA PDLILRTAHA	IPDKVKVMFD IPDKVKVMFD IPDKVKVMFD IPDKVKVMFD IPDKVKVMFD	KEFAENDIWK KEFAENDIWK KEFAENDIWK KEFAENDIWK
	251				294
ATCC700294 MGAS315 SSI-1 Manfredo MGAS8232	HFTAVKEGKV HFTAVKEGKV HFTAVKEGKV HFTAVKEGKV HFTAVKEGKV	YDLDNTLFGM YDLDNTLFGM YDLDNTLFGM YDLDNTLFGM YDLDNTLFGM	SAKLNYPEAL SAKLNYPEAL SAKLNYPEAL SAKLNYPEAL SAKLNYPEAL	DTLTQLFDHV DTLTQLFDHV DTLTQLFDRV	GDHP GDHP GDHP GDHP GDHP
110110000					